Certification of Consistency

Certification ID: C20142

Step 1 - Agency Profile

A. GOVERNMENT AGENCY: ☑ **State Agency** ☐ **Local Agency**

Government Agency:	Department of Water Resources
Primary Contact:	Sean Bagheban
Address:	1416 9th Street
City, State, Zip:	Sacramento, CA 95814
Telephone/Fax:	916 657 4389 /
E-mail Address:	seanb@water.ca.gov

B. GOVERNMENT AGENCY ROLE IN COVERED ACTION: ☑ **Will Carry Out** ☑ **Will Approve** ☑ **Will Fund**

Step 2 - Covered Action Profile

IT IS RECOMMENDED THAT YOU ENGAGE IN EARLY CONSULTATION WITH DSC STAFF AND/OR COMPLETE THE COVERED ACTION CHECKLIST TO DETERMINE IF THE PLAN, PROGRAM OR PROJECT IS CONSIDERED A COVERED ACTION AND TO IDENTIFY RELEVANT REGULATORY POLICIES

A. COVERED ACTION PROFILE: ☐ **Plan** ☐ **Program** ☑ **Project**

Title: Dutch Slough Tidal Marsh Restoration Project

B. PROPONENT CARRYING OUT COVERED ACTION (If different than State or Local Agency):

Proponent Name: Department of Water Resources

Address: 1416 9th Street

City, State, Zip: Sacramento, CA 95814

C. AT LEAST 10 DAYS PRIOR TO THE SUBMISSION OF A CERTIFICATION OF CONSISTENCY TO THE COUNCIL, agencies whose actions are not subject to open meeting laws (Bagley-Keene Open Meeting Act [Gov. Code sec 11120 et seq.] or the Brown Act [Gov. Code sec 54950 et seq.]) with regard to its certification, must post for public review and comment, their draft certification on their website and in their office, and mail to all persons requesting notice.

Any state or local public agency that is subject to open meeting laws with regard to its certification is also encouraged to take those actions.
(Note: Any public comments received during this process must be included in the record submitted to the Council in case of an appeal.)

If applicable, did you comply with this requirement? ☑ YES ☐ NO ☐ N/A

D. COVERED ACTION SUMMARY: (Project Description from approved CEQA document may be used here)

The Dutch Slough Tidal Marsh Restoration Project will restore tidal marsh and other habitats on 1,178 acres in the western Sacramento-San Joaquin Delta. The project is expected to benefit sensitive Delta species, including spring- and winter-run Chinook salmon, Sacramento splittail, and California Black Rail. The project will also improve scientific knowledge about tidal marsh restoration, and provide public access and recreation opportunities through a cooperative project with the City of Oakley.

Site description:
The Dutch Slough project site is made up of three leveed parcels which are separated by two dead-end sloughs. The property was purchased by the California Department of Water Resources (DWR) in partnership with the California Coastal Conservancy and CALFED Ecosystem Restoration Program (Department of Fish and Wildlife) in 2003 with the goal of restoring natural Delta habitats.

The current land use is primarily cattle grazing, and non-native grasses are the dominant vegetation. At the northern end of each parcel, low elevations and groundwater support areas of tule and cattail marsh, which total about 20 acres. There are approximately eight acres of riparian vegetation around irrigation ditches on the easternmost parcel. Other trees on site are located on the levees (primarily willows and black walnuts) or around the existing farm buildings (primarily cottonwoods).

Prior to European settlement, the project site was a tidal marsh bordered by seasonal and riparian wetlands and ancient dunes, with the mouth of Marsh Creek passing through the western portion. The parcels were diked and drained for agriculture during the nineteenth century, perhaps as early as the 1850s. Artificial channels were dredged between the parcels between 1904 and 1910 (Emerson Slough, Little Dutch Slough, and the eastern portion of Dutch Slough are all constructed channels). These channels displaced a pre-existing channel network that was more sinuous and irregular.

Relative to other sites in the Delta, the Dutch Slough site has a diverse topography and soils. Soils are primarily sandy mineral soils. Site elevations increase from north to south, ranging from ten feet below to ten feet above mean tide. Because about half of the Dutch Slough project area is above mean tide level, and most Delta lands have subsided to well below that elevation, the site is especially appropriate for tidal restoration.

Restoration Design:
The restoration design calls for construction of approximately 560 acres of tidal marsh habitat, 100 acres of upland habitat, and 250

acres of open water habitat across the three parcels. Approximately 1,320,000 cubic yards of existing material will be graded on site, and approximately 500,000 cubic yards of additional fill will be imported.

The design calls for variable marshplain topography composed of separate low- and mid-marsh areas. Each unique marsh area would have a distinct channel network defined by marsh drainage boundaries or divides. These discrete areas will be utilized for research experiments to assess the development, response, and success of the various restoration features.

The exterior levees of the two eastern parcels would be breached in multiple places along Little Dutch Slough. The western parcel would be breached directly to Dutch Slough. The restoration approach in the western parcel would allow for a future option to restore the natural physical processes and ecological values of a Marsh Creek delta by diverting the course of the creek through this section of restored tidal marsh. Existing riparian woodland along drainage channels would be retained as part of the marsh where possible. Areas of lowest elevation may become open water areas (either tidal or managed), or may be managed as nontidal marsh, either as habitat or as subsidence reversal and carbon sequestration.

In addition to tidal habitats, the Project will provide a relatively large area of restored uplands to benefit terrestrial habitats in a way consistent with both ecological needs and the concurrent East Contra Costa County Habitat Conservation Plan. In recent years, adjacent agricultural lands similar to those of the project area (reclaimed marshland) have undergone rapid conversion to residential and urban development.

The western parcel (Emerson) design includes the following: tidal marsh, re-routed Marsh Creek, open subtidal water, a perimeter trail, and habitat berms with riparian or grassland vegetation. The central parcel (Gilbert) design includes tidal marsh, managed marsh, and habitat berms. The eastern parcel (Burroughs) design includes tidal marsh, riparian woodland, and grassland habitat.

Project goals and expected benefits:
The primary goal of the Dutch Slough Tidal Marsh Restoration Project is to benefit native aquatic, wetland, and upland species by reestablishing hydrologic, geomorphic, and ecological processes necessary for their long-term sustainability. This includes the recovery of endangered and other at-risk species and native biotic communities through an expansion of suitable habitat, while minimizing the expansion and establishment of non-native invasive species in the project area. Sensitive species expected to directly benefit from the project include Sacramento splittail, Chinook salmon, California black rail, and silvery legless lizard.

Second, the project will be implemented under an adaptive management framework that serves to assess habitat development, measure ecosystem responses, and improve the restoration science in regional tidal marsh wetland ecosystems. These efforts will serve to inform future tidal marsh habitat restoration efforts in the Delta.

The third goal is to provide opportunities for public shoreline access, education, and recreation, which was developed in a separate master planning process, led by the City of Oakley, in association with the adjacent City Park that is being considered. This effort will include the development of a shoreline trail and access to recreational opportunities such as kayaking.

These goals are important in light of the declining health of the natural Delta ecosystem, shrinking opportunities to restore natural landscapes, and increasing pressure from development on the various habitats of the San Francisco Bay-Delta Estuary.

Conceptual approach to landscape and habitat design:
The conceptual design for restored habitats was created through an iterative process that included a restoration design contractor, review by an independent science board, and input through an adaptive management working group. The design recommends restoring marsh, upland, and riparian habitats, and will develop habitat levees that are integrated into a public access and recreation plan.

Marsh
Grading and fill will be used to build consistent marshplain elevations, generally sloping towards the channels, in separate marsh drainage areas. Elevations will include low marsh at mean lower low water (-0.3 ft National Geodetic Vertical Datum (NGVD)) and mid marsh at mean tidal level (1.5 ft NGVD). Site grading will create micro-topography on the marsh plain. Marsh areas with channel networks draining low and/or mid marsh would gradually slope from approximately -0.8 ft NGVD to +2 ft NGVD.

Marsh drainage divides (minor levees) will be constructed along the perimeter of marsh areas, to an elevation of roughly mean higher high water. Marsh drainage divides are expected to support native freshwater marsh plant species and provide high marsh habitat. During high tides, marsh drainage divides would be tidally inundated and tidal exchange between adjacent marsh areas may occur with overtopping.

Habitat Levees

Prior to the introduction of tidal influence, the levees along Little Dutch and Emerson sloughs will be lowered to elevations ranging from 6 to 8 ft NGVD, where the roots of riparian woodland plantings can reach the groundwater table. In addition, fill will be placed on the interior toe of these levees to create shallow slopes. These "habitat levees" will provide a mix of high marsh, riparian woodland, and native grassland habitats. Where levees soils are suitable, riparian trees and shrubs will be planted to create riparian woodland, woody aquatic habitat, and shaded riverine aquatic (SRA), providing benefits to a suite of native species including neotropical migrants and salmonids.
Levee improvements will also include removal of inappropriate armoring and replacement with new rip rap, creating gentler levee slopes and wide toe berms. These activities will be covered under the regulatory permits for the project.

Uplands
Restored upland habitat include riparian, grassland, and dune habitats. These habitats will be revegetated with native plant species to provide a diversity of habitat functions for wildlife. Active restoration of desired native plant species will include removal of invasive weeds during the establishment period, and is anticipated to allow native plants to dominate most plant communities, potentially providing habitat for both common and sensitive wildlife and plants.

Riparian uplands and habitat levees would be planted with native woody species to maximize the ultimate extent and diversity of native riparian plant communities and hasten the process of volunteer establishment. Native grasslands and native herbaceous floodplain vegetation would be restored on additional upland areas. Native dune habitat would be restored at the site of the remnant sand mounds by planting and/or seeding with a mix of native dune scrub plants following initial weed control. As with native grasslands, dune habitat is not expected to develop without planting even in the long term.

Project implementation schedule:
2003 – DWR acquired the property with funding from CALFED and SCC
2006 – DWR and SCC Completed Conceptual Plan and Feasibility Report
2008 – (November) Release Draft EIR
2010 – (March) Release Final EIR
2012 – Submit all permit applications
2015 – Begin construction once all permits have been received

E. STATUS IN THE CEQA PROCESS: NOD has been filed

F. STATE CLEARINGHOUSE NUMBER: (if applicable) 2006042009

G. COVERED ACTION ESTIMATED TIME LINE:

ANTICIPATED START DATE: (If available) 12/1/2014 ANTICIPATED END DATE: (If available) 1/1/2020

H. COVERED ACTION TOTAL ESTIMATED PROJECT COST: $35,000,000.00

I. IF A CERTIFICATION OF CONSISTENCY FOR THIS COVERED ACTION WAS PREVIOUSLY SUBMITTED, LIST DSC REFERENCE NUMBER ASSIGNED TO THAT CERTIFICATION FORM:

J. SUPPORTING DOCUMENTS: **DutchSl_AdaptiveMgtPlan_2008.pdf**, **DutchSl_SeepageReport_2013.pdf**, **DutchSl_ConceptualPlanFeasibilityStudy_2006.pdf**, **DutchSl_FinalEIR_2010.pdf**, **DutchSl_MarshCreek_HydraulicModel_2014.pdf**, **DutchSl_RevisedConceptualPlan_2010.pdf**, **DutchSl_FinalSEIR_2014.pdf**, **DutchSl_Draft_EIR_2008.pdf**, **Dutch_Sl_References_BestAvailScience.pdf**, **Dutch Slough Notice.pdf**

Step 3 - Consistency with the Delta Plan

DELTA PLAN CHAPTER 2

G P1 / 23 CCR SECTION 5002 – **Detailed Findings to Establish Consistency with the Delta Plan.**

In General: (23 CCR SECTION 5002 (a), (b), (1)) This regulatory policy specifies what must be addressed in a certification of consistency filed by a State or local public agency with regard to any covered action.

This regulatory policy only applies after a "proposed action" has been determined by a State or local public agency to be a covered action because it is covered by one or more of the regulatory policies listed under Delta Plan Chapters 3, 4, 5, and 7 of this form. Inconsistency with this policy may be the basis for an appeal.

Covered actions, in order to be consistent with the Delta Plan, must be consistent with this regulatory policy and with each of the regulatory policies listed under Delta Plan Chapters 3, 4, 5 and 7 of this form implicated by the covered action. The Delta Stewardship Council acknowledges that in some cases, based upon the nature of the covered action, full consistency with all relevant regulatory policies may not be feasible. In those cases, the agency that files the certification of consistency may nevertheless determine that the covered action is consistent with the Delta Plan because, on whole, that action is consistent with the coequal goals. That determination must include a clear identification of areas where consistency with relevant regulatory policies is not feasible, an explanation of the reasons why it is not feasible, and an explanation of how the covered action nevertheless, on whole, is consistent with the coequal goals. That determination is subject to review by the Delta Stewardship Council on appeal;

Specific requirements of this regulatory policy:

a. **Mitigation Measures** (23 CCR SECTION 5002 (b), (2))
The covered action is not exempt from CEQA, and includes applicable feasible mitigation measures identified in the Delta Plan's Program Environmental Impact Report, (unless the measure(s) are within the exclusive jurisdiction of an agency other than the agency that files the certification of consistency), or substitute mitigation measures that the agency that files the certification of consistency finds are equally or more effective.

Is the covered action consistent with this portion of the regulatory policy?

☑ YES ☐ **NO** ☐ **N/A**

Answer Justification: This project is consistent with all applicable mitigation measures as described in the attached document. DutchSl_ MitigationMeasures.pdf

b. **Best Available Science (**23 CCR SECTION 5002 (b), (3))
The covered action documents use of best available science as relevant to the purpose and nature of the project.

Is the covered action consistent with this portion of the regulatory policy? Appendix 1A is referenced in this regulatory policy.

☑ YES ☐ **NO** ☐ **N/A**

Answer Justification: This project is consistent with all applicable best available science practices as described in the attached documents. DutchSl_BestAvailScience.pdf, Dutch_Sl_References_BestAvailScience.pdf

c. **Adaptive Management** (23 CCR SECTION 5002 (b), (4))
The covered action involves ecosystem restoration or water management, and includes adequate provisions, appropriate to its scope, to assure continued implementation of adaptive management

Is the covered action consistent with this portion of the regulatory policy? Appendix 1B is referenced in this regulatory policy.

☑ YES ☐ **NO** ☐ **N/A**

Answer Justification: This project is consistent with all applicable adaptive management practices as described in the attached document. Dutch_Sl_Ad_Mgt_narrative.pdf

DELTA PLAN CHAPTER 3

WR P1 / 23 CCR SECTION 5003 - Reduce Reliance on the Delta through Improved Regional Water Self-Reliance

Is the covered action consistent with this regulatory policy?

☐ YES ☐ **NO** ☑ **N/A**

Answer Justification: The covered action does not involve water that is exported from, transferred through, or used in the Delta

WR P2 / 23 CCR SECTION 5004 - Transparency in Water Contracting

Is the covered action consistent with this regulatory policy? Appendix 2A and Appendix 2B are referenced in this regulatory policy.

☐ YES ☐ **NO** ☑ **N/A**

Answer Justification: The covered action does not involve entering into or amending water supply or water transfer contracts subject to DWR Guideline 03-09 and/or 03-10 (each dated July 3, 2003), (Appendix 2A).

DELTA PLAN CHAPTER 4

Conservation Measure: (23 CCR SECTION 5002 (c))

A conservation measure proposed to be implemented pursuant to a natural community conservation plan or a habitat conservation plan that was:
(1) Developed by a local government in the Delta; and
(2) Approved and permitted by the California Department of Fish and Wildlife prior to May 16, 2013
is deemed to be consistent with the regulatory policies listed under Delta Plan Chapter 4 of this form (i.e. sections 5005 through 5009) if the certification of consistency filed with regard to the conservation measure includes a statement confirming the nature of the conservation measure from the California Department of Fish and Wildlife.

Is a statement confirming the nature of the conservation measure from the California Department of Fish and Wildlife available?

☐ YES ☐ **NO** ☑ **N/A**

Answer Justification: The covered action does not include a natural community conservation plan or a habitat conservation plan.

ER P1 / 23 CCR SECTION 5005 - Delta Flow Objectives

Is the covered action consistent with this regulatory policy?

☐ YES ☐ **NO** ☑ **N/A**

Answer Justification: The covered action does not significantly affect flow in the Delta.

ER P2 / 23 CCR SECTION 5006 - Restore Habitats at Appropriate Elevations

Is the covered action consistent with this regulatory policy? Appendix 3 and Appendix 4 are referenced in this regulatory policy.

☑ YES ☐ **NO** ☐ **N/A**

Answer Justification: This project is consistent with restoring habitats at appropriate elevations as described in the attached documents. DutchSl_ConceptualPlanFeasibilityStudy_2006.pdf, DutchSl_RevisedConceptualPlan_2010.pdf, Dutch_Sl_design_elevations.pdf

ER P3 / 23 CCR SECTION 5007 - Protect Opportunities to Restore Habitat

Is the covered action consistent with this regulatory policy? Appendix 4 and Appendix 5 are referenced in this regulatory policy.

☑ YES ☐ **NO** ☐ **N/A**

Answer Justification: The primary objective of the project is to restore natural Delta habitats.

ER P4 / 23 CCR SECTION 5008 - Expand Floodplains and Riparian Habitats in Levee Projects

Is the covered action consistent with this regulatory policy? Appendix 8 is referenced in this regulatory policy.

☑ YES ☐ **NO** ☐ **N/A**

Answer Justification: New levees will be constructed, and existing levees rehabilitated as part of the restoration project. These levees will be selectively vegetated with riparian trees and shrubs. See attached conceptual plans. DutchSl_ConceptualPlanFeasibilityStudy_2006.pdf, DutchSl_RevisedConceptualPlan_2010.pdf

ER P5 / 23 CCR SECTION 5009 - Avoid Introductions of and Habitat for Invasive Nonnative Species

Is the covered action consistent with this regulatory policy?

☑ YES ☐ **NO** ☐ **N/A**

Answer Justification: One of the unavoidable and potentially significant effects of the Project is the creation of habitat (subtidal open water) for nonnative plants (e.g. Egeria) and fishes (e.g. bass, sunfish). Design of the open water includes features to minimize this effect, including excavation to a depth that is deeper than that where Egeria is likely to grow, compacted steep sides to minimize depths favorable to aquatic weeds, two breaches to enhance circulation and reduce crowding of natives at a single breach where they would be vulnerable to predation by nonnatives, and separation between the open water and the adjacent tidal marsh. The marshes are designed to maximize drainage at low tide, to minimize habitat for non-native fishes. Because the Delta environment is heavily impacted by numerous invasive weeds, regular maintenance will be conducted to control invasives. Regular (at least annual) treatments (removal, spraying, etc) of Himalayan blackberry, perennial pepperweed, pampas grass and other locally noxious weeds will be conducted in areas that are accessible. Within the restored tidal marshes, weed treatments may be less frequent due to accessibility and possibly permitting issues. Below is text taken from the Adaptive Management Plan about management and control of invasive species on the project site: • Upland vegetation management and monitoring to limit invasive weeds. The purpose of this element is to assure that the site is not overwhelmed by exotic weeds in the transition from grazing to tidal marsh restoration. The primary concern is establishment of invasive species above the high tide level such as pepper grass. Invasives that become established below the mean tide elevations prior to tidal inundation will most likely not survive tidal inundation. Therefore, this activity should focus on management practices to limit establishment of weedy vegetation on the upland portions of the site (>3 NGVD). • Minimize establishment of and reduce impacts from non-native invasive species. 1. Design and manage the project to minimize the introduction of feral animals. 2. Design and manage the project to minimize potential for establishment of non-native submerged aquatic vegetation (e.g. egeria densa). 3. Design and manage to prevent colonization and establishment of arundo donax, pepper weed and Phragmites. 4. Minimize human impacts to wildlife particularly nesting avian species. • Invasive SAV establishment. Conditions affecting the establishment and survival of non-native SAV (e.g., Egeria densa) were the focus in conceptual model development because of SAV's perceived detriment to native fishes (see below). SAV can colonize tidal areas and grow at depths of up to 8 to 12 ft below MTL (-6.5 to -10.5 ft NGVD). Based on limited data, tt is not expected to be possible to control non-native SAV by designing for high velocities or selection of substrate (L. Anderson, USDA, pers. comm.). High velocities are expected to slow, but not prevent, the initial establishment of SAV. SAV is expected to establish in pockets in low velocity areas adjacent to high velocity areas. Once established, SAV is expected to eventually spread to higher velocity areas, forming a continuous coverage. Similarly, compacted soils or other unsuitable substrates are expected to slow, but not prevent, SAV colonization.

DELTA PLAN CHAPTER 5

DP P1 / 23 CCR SECTION 5010 - Locate New Urban Development Wisely

Is the covered action consistent with this regulatory policy? Appendix 6 and Appendix 7 are referenced in this regulatory policy.

☐ YES ☐ **NO** ☑ **N/A**

Answer Justification: The covered action does not involve new residential, commercial, or industrial development.;

DP P2 / 23 CCR SECTION 5011 - Respect Local Land Use When Siting Water or Flood Facilities or Restoring Habitats

Is the covered action consistent with this regulatory policy?

☑ YES ☐ **NO** ☐ **N/A**

Answer Justification: The project site is completely within the city of Oakley in Contra Costa County. Prior to the purchase of the land by DWR, the project site was zoned for urban development, and preliminary design plans had been discussed with the City. As part of the initial planning for the project, our project partners Natural Heritage Institute and State Coastal Conservancy actively coordinated with the City of Oakley on many issues, including changing the zoning of the parcels to Delta Recreation. This zoning change was accomplished shortly before the land was purchased, so the restoration project is an appropriate use for the site's zoning. The project site is bounded on the west by Marsh Creek, which is under the jurisdiction of the Contra Costa County Flood Control and Water Conservation District, and on the south by the Contra Costa Canal, which is managed by the Contra Costa Water District. DWR has been in regular communication with these two County agencies to coordinate on project-related issues.

DELTA PLAN CHAPTER 7

RR P1 - Prioritization of State Investments in Delta Levees and Risk Reduction

Is the covered action consistent with this regulatory policy?

☐ YES ☐ **NO** ☑ **N/A**

Answer Justification: The covered action does not involve discretionary State investments in Delta flood risk management including levee operations, maintenance, and improvements.

RR P2 - Require Flood Protection for Residential Development in Rural Areas.

Is the covered action consistent with this regulatory policy? Appendix 7 is referenced in this regulatory policy.

☐ YES ☐ **NO** ☑ **N/A**

Answer Justification: The covered action does not involve new residential development of five or more parcels.

RR P3 - Protect Floodways

Is the covered action consistent with this regulatory policy?

☐ YES ☐ **NO** ☑ **N/A**

Answer Justification: The covered action does not encroach within any floodway.

RR P4 - Floodplain Protection

Is the covered action consistent with this regulatory policy?

☐ YES ☐ **NO** ☑ **N/A**

Answer Justification: The covered action does not encroach in any of the following floodplain areas:
(1) The Yolo Bypass within the Delta;
(2) The Cosumnes River-Mokelumne River Confluence, as defined by the North Delta Flood Control and Ecosystem Restoration Project (McCormack-Williamson), or as modified in the future by the California Department of Water Resources or the U.S. Army Corps of Engineers (California Department of Water Resources 2010); and
(3) The Lower San Joaquin River Floodplain Bypass area, located on the Lower San Joaquin River upstream of Stockton immediately southwest of Paradise Cut on lands both upstream and downstream of the Interstate 5 crossing. This area is described in the Lower San Joaquin River Floodplain Bypass Proposal, submitted to the California Department of Water Resources by the partnership of the South Delta Water Agency, the River Islands Development Company, Reclamation District 2062, San Joaquin Resource Conservation District, American Rivers, the American Lands Conservancy, and the Natural Resources Defense Council, March 2011. This area may be modified in the future through the completion of this project.